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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,258	07/15/2003	Vinoj N. Kumar	1-1	9759

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EXAMINER	
NASH, LASHANYA RENEE	
ART UNIT	PAPER NUMBER
2153	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/620,258	KUMAR ET AL.	
	Examiner	Art Unit	
	LaShanya R. Nash	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the amendment filed 27 October 2006. Claims 1-17 are being considered. Claim 6 is currently amended.

Response to Arguments

Objection to the disclosure, see Remarks page 6, has been withdrawn.

Objection to claim 1, see Remarks page 6, has been withdrawn.

Applicant's arguments filed 27 October 2006 have been fully considered but they are not persuasive.

In considering the Applicant's arguments the following factual remarks are noted:

(I) Applicant contends that Smith fails to teach the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one ore more time intervals.

In considering (I), Applicant contends that Smith fails to teach the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one ore more time intervals. Examiner respectfully disagrees. Examiner asserts that Smith expressly discloses a network traffic simulation wherein the traffic burst is generated *based at least in part on an amount of the first type of traffic* (i.e. given

distribution). Smith discloses that a user determines a percentage for each type of packet that is comprised in the traffic mixture (i.e. normal and lognormal distribution traffic). Smith further discloses that from the aforementioned percentages, the actual amount of each type of traffic to be simulated is subsequently calculated. For example, a user assigns a percentage to a first type of traffic *A*, and a percentage to a second type of traffic *B*. According to the disclosure of Smith, the amount of each type of traffic to be simulated is thereby calculated by multiplying the total number of packets, *T*, transmitted during a time interval by the respective percentage (e.g. *A*(%)**T* (#)= amount of traffic type 1; *B*(%)**T*(#)=amount of traffic type 2). It is evident that each specified percentage for a particular type of traffic directly affects the amounts for the remaining portions of the traffic mixture containing the other types of traffic. Regardless of the assertion that traffic type generation steps are operated independently (i.e. steps 108 and 112), (remarks page 8), Examiner asserts that it is the aforementioned amount calculation and percentage determination that associates these generation operations together. Therefore, Examiner asserts according to this configuration (i.e. application of traffic type percentages), the generated amount of a traffic type is *based at least in part on an amount of the other type of traffic*. Examiner further asserts that the claims fail to explicitly recite any specific conditions that form the basis of the first type of traffic used to generate the traffic burst. As a result, Examiner maintains rejections as set forth below in the Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith, II (US Patent 7,013,255), hereinafter referred to as Smith.

In reference to claim 1, Smith discloses a method for simulating both burst and normal type traffic in a telecommunications network, (abstract; column 1, lines 25-65). Smith discloses:

- A method (Figure 3) of generating data traffic in a traffic generator, the method comprising the steps of (column 6, lines 15-30):
- Generating a first type of traffic (Figure 3-item 112) in accordance with a given distribution (i.e. normal distributed traffic; column 2, lines 10-30; column 2, lines 49-55); and
- Generating a second type of traffic different than the first type of traffic (Figure 3-item 108 and Figure 3-item124), the second type of traffic comprising at least one traffic burst (i.e. lognormal distributed traffic; column 2, lines 32-48);
- Wherein the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one or more time intervals (i.e. bimodal

distributed traffic; column 3, lines 24-45; column6, lines 30-45; Figure3-item 132).

In reference to claim 2, Smith shows the method wherein the step of generating the second type of traffic further comprises accumulating traffic over one or more of the time intervals for which the first type of traffic is generated, and generating the traffic burst based at least in part on the accumulated traffic (i.e. percentage of the total number of packets in a specified time interval; column 6, lines 30-45).

In reference to claim 3, Smith shows the method wherein the first type of traffic comprises comparative traffic characteristic of non-burst traffic (i.e. column 2, lines 49-55; column 5, lines 53-65).

In reference to claim 4, Smith shows the method wherein the given distribution comprises a Poisson distribution (column 1, lines 35-45).

In reference to claim 5, Smith shows the method wherein the given distribution comprises a Gaussian distribution (column 5, lines 40-52).

In reference to claim 6, Smith shows the method wherein the step of generating the second type of traffic further comprises the step of determining, for each of the one or more time intervals, if an amount of the traffic of the first type generated during that

interval is less than a comparison level, and if so adding an amount of compensatory traffic (i.e. composite traffic) to a burst container having a capacity given by a burst size (column 2, line 55- column 3, line 2; column 6, line 58-column 7, line 3).

In reference to claim 7, Smith shows the method wherein the traffic burst is generated when a total amount of accumulated traffic in the burst container is greater than or equal to the burst size (i.e. the total number of data packets of this type; column 6, lines 46-57; column 2, line 55- column 3, line 2).

In reference to claim 8, Smith shows the method wherein the burst size is determined as a function of a mean burst size and a corresponding variation range, (column 6, lines 31-45).

In reference to claim 9, Smith shows the method of wherein the amount of compensatory traffic comprises an amount of traffic given by a compensatory-accumulation size (i.e. total number of values generated by each generator; column 6, line 58-column 7, line 3).

In reference to claim 10, Smith shows the method wherein the compensatory-accumulation size is determined as a function of a mean compensatory-accumulation size and a corresponding variation range (column 6, lines 31-45).

In reference to claim 11, Smith shows the method wherein the one or more time intervals each comprise sample slot times (column 7,lines 20-38).

In reference to claim 12, Smith shows the method wherein the step of generating the second type of traffic further comprises generating a plurality of traffic bursts, wherein a given one of the traffic bursts is generated by: determining a current burst size and a current compensatory-accumulation size (column 2, line 55- column 3, line 2); creating an initially-empty burst container having a capacity that is equal to the burst size; adding compensatory traffic to the burst container whenever the total traffic of the first type generated within a given sample slot time is less than a comparison level, such that for each such addition of compensatory traffic, a level of traffic in the burst container increases by the compensatory-accumulation size; and generating the given traffic burst when the burst container level is greater than or equal to the burst size (column 6, line 58-column 7, line 38).

In reference to claim 13, Smith shows the method wherein the traffic of the second type comprises a plurality of traffic bursts which are generated in a manner which tends to compensate for temporary reductions in the amount of traffic of the first type so as to substantially maintain a particular level of traffic flow (column 6, lines 15-30; column 7, lines 29-38).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, II (US Patent 7,013,255) in view of St. Hontas et al. ["ATM Traffic Generator Card. An Integrated Solution." –retrieved from IEEE], hereinafter referred to as Smith and St. Hontas respectively.

In reference to claims 16 and 14, Smith discloses a method for simulating both burst and normal type traffic in a telecommunications network, (abstract; column 1, lines 25-65). Smith discloses:

- An apparatus (i.e. generator; Figure 2) for generating data traffic in a traffic generator, the device implementing a traffic generator operative (column 5, lines 53-65; column 6, lines 15-30):
- To generate a first type of traffic (Figure 3-item 112) in accordance with a given distribution (i.e. normal distributed traffic; column 2, lines 10-30; column 2, lines 49-55); and
- To generate a second type of traffic different than the first type of traffic (Figure 3-item 108 and Figure 3-item124), the second type of traffic comprising at least one traffic burst (i.e. lognormal distributed traffic; column 2, lines 32-48);

- Wherein the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one or more time intervals (i.e. bimodal distributed traffic; column 3, lines 24-45; column6, lines 30-45; Figure3-item 132).

However, the reference fails to disclose that the aforementioned apparatus having a processor and a memory [claim 16]; and hardware traffic generator [claim 14]. Nonetheless, these features were well known components of traffic generators at the time of the art, as further evidenced by St. Hontas. Therefore, one of ordinary skill in the art at the time of the invention would have been so motivated to accordingly modify the apparatus as disclosed by Smith.

In an analogous art, St. Hontas discloses an ATM traffic generator for generating constant-bit-rate and bursty traffic streams, (*1. Introduction*; page 1). St. Hontas discloses that the aforementioned architecture comprises hardware traffic generator, specifically a processor and memory (Figure 4; *4.2 The hardware part*; pages 4-5). One of ordinary skill in the art would have been so motivated to implement the traffic generator as hardware so as to promote design flexibility thereby allowing the apparatus to inter-work with a real traffic source and emulate the traffic profile (St. Hontas; *2.The main features of the generator*; page 1-2).

In reference to claims 17 and 15, Smith discloses a method for simulating both burst and normal type traffic in a telecommunications network, (abstract; column 1, lines 25-65). Smith discloses:

- A method (Figure 3) of generating data traffic in a traffic generator, the method comprising the steps of (column 6, lines 15-30):
- Generating a first type of traffic (Figure 3-item 112) in accordance with a given distribution (i.e. normal distributed traffic; column 2, lines 10-30; column 2, lines 49-55); and
- Generating a second type of traffic different than the first type of traffic (Figure 3-item 108 and Figure 3-item124), the second type of traffic comprising at least one traffic burst (i.e. lognormal distributed traffic; column 2, lines 32-48);
- Wherein the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one or more time intervals (i.e. bimodal distributed traffic; column 3, lines 24-45; column6, lines 30-45; Figure3-item 132).

However, the reference fails to disclose that the aforementioned method implemented via an article of manufacture comprising a storage medium containing one or more software programs for use in generating data traffic in a traffic generator, wherein the one or more software programs when executed implement the method steps [claim 17]; and a software traffic generator [claim 15]. Nonetheless, these features were well known components of traffic generators at the time of the invention, as further evidenced by St. Hontas. Therefore, one of ordinary skill in the art at the time of the invention would have been so motivated to accordingly modify the method as disclosed by Smith.

In an analogous art, St. Hontas discloses an ATM traffic generator for generating constant-bit-rate and bursty traffic streams, (*1. Introduction*; page 1). St. Hontas discloses that the aforementioned architecture comprises software traffic generator, specifically an article of manufacture comprising a storage medium containing one or more software programs for use in generating data traffic in a traffic generator, wherein the one or more software programs when executed implement the method steps (Figure 3; *4.1 The software part*; pages 3-4). One of ordinary skill in the art would have been so motivated to implement the traffic generator as software so as to promote design flexibility thereby allowing the apparatus to inter-work with a real traffic source and emulate the traffic profile (St. Hontas; *2.The main features of the generator*; page 1-2).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this

communication or earlier communications from the examiner should be directed to LaShanya R. Nash whose telephone number (571) 272-3957. The examiner can normally be reached on Monday-Friday from 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LaShanya Nash
AU 2153
January 4, 2006

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER